

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US2004/033219

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J21/06 B01J23/50 B01J23/66 C07D301/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 593 097 A (BURT JANET T ET AL) 15 April 1952 (1952-04-15) column 1, line 1 - line 7 column 2, line 11 - line 21 column 2, line 33 - line 46 claims 1-3	1-7, 23, 24
X	US 5 145 824 A (BUFFUM JOHN E ET AL) 8 September 1992 (1992-09-08) cited in the application abstract column 7, line 13 - column 8, line 23 tables 4-6 examples J, O, R-W	1-24
	----- -/-- -----	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

28 December 2004

Date of mailing of the international search report

13/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Gosselin, D

INTERNATIONAL SEARCH REPORT

International Application
PCT/US2004/033219

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 733 842 A (REMUS DONALD J ET AL) 31 March 1998 (1998-03-31) column 1, line 8 - line 10 column 4, line 26 - line 52	1-24
A	EP 1 308 442 A (NIPPON CATALYTIC CHEM IND) 7 May 2003 (2003-05-07) abstract paragraphs '0020!, '0022!	1-24
A	US 5 801 259 A (KOWALESKI RUTH MARY) 1 September 1998 (1998-09-01) cited in the application abstract column 5, line 23 - line 26 column 5, line 51 - line 57 column 6, line 5 - line 11	1-24
A	EP 0 480 538 A (UNION CARBIDE CHEM PLASTIC) 15 April 1992 (1992-04-15) the whole document	1-24
A	EP 0 393 785 A (UNION CARBIDE CHEM PLASTIC) 24 October 1990 (1990-10-24) the whole document	1-24

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/033219

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2593097	A	15-04-1952	NONE	
US 5145824	A	08-09-1992	AU 641584 B2	23-09-1993
			AU 1034192 A	30-07-1992
			BR 9200166 A	06-10-1992
			CA 2059711 A1	23-07-1992
			CN 1063427 A ,B	12-08-1992
			CS 9200166 A3	12-08-1992
			DE 69200450 D1	03-11-1994
			DE 69200450 T2	23-02-1995
			DK 496470 T3	24-10-1994
			EP 0496470 A1	29-07-1992
			ES 2061309 T3	01-12-1994
			JP 3302387 B2	15-07-2002
			JP 5084440 A	06-04-1993
			KR 225874 B1	15-10-1999
			MX 9200243 A1	01-07-1992
			PL 293237 A1	02-11-1992
			SK 279174 B6	08-07-1998
			RU 2014114 C1	15-06-1994
			TR 25623 A	01-07-1993
			ZA 9200376 A	30-09-1992
US 5733842	A	31-03-1998	AT 206636 T	15-10-2001
			BR 9708889 A	03-08-1999
			CA 2249277 A1	06-11-1997
			CN 1216939 A ,B	19-05-1999
			DE 69707278 D1	15-11-2001
			DE 69707278 T2	18-07-2002
			DK 900126 T3	11-02-2002
			EP 0900126 A1	10-03-1999
			ES 2165601 T3	16-03-2002
			JP 3295433 B2	24-06-2002
			JP 11509777 T	31-08-1999
			RU 2157729 C2	20-10-2000
			TW 482693 B	11-04-2002
			WO 9740932 A1	06-11-1997
EP 1308442	A	07-05-2003	JP 2003144932 A	20-05-2003
			EP 1308442 A1	07-05-2003
			US 2003092922 A1	15-05-2003
US 5801259	A	01-09-1998	AU 711973 B2	28-10-1999
			AU 2776097 A	19-11-1997
			CA 2252780 A1	06-11-1997
			CN 1216940 A ,B	19-05-1999
			DE 69705309 D1	26-07-2001
			DE 69705309 T2	15-11-2001
			WO 9740933 A1	06-11-1997
			EP 0900128 A1	10-03-1999
			ES 2158559 T3	01-09-2001
			JP 2000508969 T	18-07-2000
EP 0480538	A	15-04-1992	JP 5305237 A	19-11-1993
			AT 170425 T	15-09-1998
			AU 656537 B2	09-02-1995
			AU 8576191 A	30-04-1992
			CA 2053411 A1	13-04-1992

INTERNATIONAL SEARCH REPORT

 International Application No
 PCT/US2004/033219

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0480538	A		DE 69130098 D1	08-10-1998
			DE 69130098 T2	01-04-1999
			EP 0480538 A1	15-04-1992
			ES 2120412 T3	01-11-1998
			JP 2720124 B2	25-02-1998
			JP 4305246 A	28-10-1992
			KR 147853 B1	17-08-1998
			DK 480538 T3	02-11-1998
			US 6511938 B1	28-01-2003
EP 0393785	A	24-10-1990	US 5504053 A	02-04-1996
			AT 116976 T	15-01-1995
			AU 640924 B2	09-09-1993
			AU 5321190 A	25-10-1990
			BR 9001784 A	11-06-1991
			CA 2014667 A1	18-10-1990
			CN 1080636 A , B	12-01-1994
			DE 69015863 D1	23-02-1995
			DE 69015863 T2	18-05-1995
			DK 393785 T3	27-03-1995
			EP 0393785 A1	24-10-1990
			ES 2066101 T3	01-03-1995
			JP 3049560 B2	05-06-2000
			JP 3068449 A	25-03-1991
			KR 9508196 B1	26-07-1995
			RU 2045335 C1	10-10-1995
			CA 1337722 C	12-12-1995
			CN 1048338 A , B	09-01-1991
			ZA 9002931 A	27-02-1991